



CS-80-135

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March 30, 2001

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To: Commissioner of Patents and Trademarks
Washington, D.C. 20231

Fr: George O. Saile, Reg. No. 19,572
20 McIntosh Drive
Poughkeepsie, N.Y. 12603

Subject:

Serial No. 09/759,909 01/16/01

Victor Seng Keong Lim, Feng Chen,
Lap Chan, Wang Ling Goh

EXTENDED POLY BUFFER STI SCHEME

Grp. Art Unit:

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation
In An Application.

The following Patents and/or Publications are submitted to
comply with the duty of disclosure under CFR 1.97-1.99 and
37 CFR 1.56. Copies of each document is included herewith.

U.S. Patent 5,506,168 to Morita et al., "Method for
Manufacturing Semiconductor Device", teaches various methods of
forming shallow trench isolation.

U.S. Patent 5,006,482 to Kerbaugh et al., "Forming Wide
Dielectric-Filled Planarized Isolation Trenches in Semi-
conductors", teaches polysilicon over oxide and etchback.

U.S. Patent 5,712,185 to Tsai et al., "Method for Forming Shallow Trench Isolation", discloses an STI process in which a polysilicon or oxide layer is used to improve the STI recessed edge.

U.S. Patent 5,229,316 to Lee et al., "Semiconductor Processing Method for Forming Substrate Isolation Trenches", teaches a STI process where a sacrificial nitride layer is formed over a polysilicon layer.

U.S. Patent 5,837,612 to Ajuria et al., "Silicon Chemical Mechanical Polish Etch (CMP) Stop for Reduced Trench Fill Erosion and Method for Formation", teaches an STI process using a polysilicon layer as a polish stop.

U.S. Patent 5,872,045 to Lou et al., "Method for Making an Improved Global Planarization Surface by Using a Gradient-Doped Polysilicon Trench-Fill in Shallow Trench Isolation", teaches filling a STI region with polysilicon.

U.S. Patent 4,307,180 to Pogge, "Process of Forming Recessed Dielectric Regions in a Monocrystalline Silicon Substrate", teaches a polysilicon layer and an etchback process to prevent dishing.

CS-00-135

U.S. Patent 6,080,637 to Huang et al., "Shallow Trench Isolation Technology to Eliminate a Kink Effect", discloses a process for creating an insulator filled, shallow trench, in a semiconductor substrate, in which the insulator layer in the shallow trench, is not exposed to procedures used to remove defining composite insulator layers.

Sincerely,

A handwritten signature in black ink, appearing to read "SBA", written over the word "Sincerely,".

Stephen B. Ackerman,
Reg. No. 37761

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

Document Number (Optional)

CS-00-105

Application Number

09/759-909

Applicant

Victor Seng Keang Lim et al.

Filing Date

01/16/01

Group Art Unit

APR 06 2001

(Use several sheets if necessary)

U. S. PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	TITLE	CLASS	SUBCLASS	ALIAS DATE IF APPROPRIATE
5006482	4/9/91	Kerbaugh et al.	437	67	10/25/89
6080637	6/27/00	Huang et al.	438	424	12/7/98
4307180	12/22/81	Pogge	430	314	8/22/80
5506168	4/9/96	Morita et al.	437	67	10/11/94
5712185	1/27/98	Tsai et al.	437	67	4/23/96
5229316	7/20/93	Lee et al.	437	67	4/16/92
5837612	11/17/98	Ajuria et al.	438	697	8/1/97
5872045	2/16/99	Lou et al.	438	432	7/14/97

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Portracted Pages, Etc.)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.